efficiently attained. Also, certain changes may be made in the above-described construction without departing from the scope of the invention.

Therefore, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense. It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described and those made obvious herefrom.

What is intended to be covered by Letters Patent is:

CLAIMS

1. A self-contained portable, keyboardless computer for performing data collection and recording functions, said computer comprising:

A. a combined input/output device including a display, a touch sensitive screen superposed over said display, and a touch screen controller for controlling said screen;

B. a memory having locations for storing data collection application and locations for storing data entered manually by touching said display screen, said application determining the content and format of displays appearing on said display;

C. a processing unit connected to said memory for executing said application and processing said manually entered data in accordance with said application, and connected

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to said input/output device;

D. a battery pack for powering said input/output device and said processing unit; and

E. a computer housing for housing said memory, processing unit, input/output device, and said battery pack, said enclosure having a window for rendering said display visible and said touch screen manually accessible.

2. The portable computer of Claim 1 wherein:

A. said memory includes a consequential library comprising (i) a first plurality of fields each for storing data and (ii) a second plurality of fields, each for storing an action in association with one or more said data fields; and

B. said processor unit causes the display on said combined input/output device of a list comprising said data of said first plurality of fields;

C. said combined input/output device responding to a touch to generate a signal indicating a selection from said list, said signal being transmitted to said processing unit; and

D. said processing unit responding to said signal to (i) store said selection of data at a pre-selected location in memory and (ii) fetch from memory the action stored therein that is associated with said selection of data and thereafter executing said action.

3. The portable computer of claim 1 wherein:

A. said memory includes a first plurality of fields for storing questions; a second plurality of fields for storing answers to said questions; and a third plurality of fields each associated with one of said first plurality of fields for storing the information concerning the nature of the question or answer being sought;

B. said combined input/output device displaying an indicia in association with each question in conjunction with which data is being sought, and, when said indicia is touched transmitting a help-request signal to said processing unit; and

C. said processing unit fetching said information associated with the question which is associated with said touched indicia, and causing said fetched textured information to be displayed by said combined input/output device.

4. The portable computer of Claim 1 wherein:

A. said memory includes a first plurality of fields for storing a plurality of subjects concerning which data is to be collected, and a second plurality of fields, each associated with one of said first plurality of fields, for storing data;

B. said processing unit selectively fetching said subjects from said first plurality of fields and causing said combined input/output device to display said fetched subjects;

C. said combined input/output device in response to touching of said touch sensitive screen at a selected location to indicate a user response to the subject, generating a response signal indicative of said response, data corresponding to said response signal being stored in one of said second plurality of fields corresponding to said subject.

5. The portable computer of Claim 4 wherein:

A. said memory includes a third plurality of fields in association with at least one of said first plurality of subject fields, for storing a library of possible responses;

B. said processing unit fetching said library of possible responses from said third plurality of fields and causing said combined input/output device to display said library as a list of possible responses in association with said associated subject; and

D. said combined input/output device in response to touching of said touch sensitive screen at a selected location corresponding to one of said possible responses, generating said response signal indicative of

said selected responses.

6. The portable computer of Claim 5 wherein said displayed possible responses are pictograms.

7. The portable computer of Claim 4 wherein:

A. said memory includes a third plurality of fields for storing in association with at least one subject, a plurality of possible responses thereto;

B. said processing unit selectively fetching said subjects from said first plurality of fields and said possible responses from said third plurality of fields and causing said combined input/output device to display said at least one subject in association with said possible responses as a multiple choice question; and

C. said input/output device, in response to touching of said touch sensitive screen at a selected location corresponding to one of said possible responses, generating a response signal indicative of said response, data corresponding to said response signal being stored in the one of said second plurality of fields corresponding to said subject.

8. The portable computer of Claim 7 wherein said combined input/output device, in response to touching said touch sensitive screen at a plurality of locations to indicate a selected

plurality of said possible responses, generates a plurality of response signals indicative of said response, data corresponding to each of said response signals being stored in said second plurality of fields corresponding to said subject.

9. The portable computer of Claim 4 wherein:

A. said memory includes a third plurality of fields for storing a library of possible responses to at least one of said subject; and

B. said processing unit responding to a response to said one subject by comparing said response with each possible response of said library and, if a match is encountered, causing said display screen to display an indicia indicative of said match.

10. The portable computer of Claim 4 wherein:

A. said combined input/output device displays a "move" indicia in association with a subject displayed at a first location on the screen; and

B. said processing unit responds to a manual indication of said move indicia to move said subject to a second, different location on said screen.

11. The portable computer of Claim 1 further including a floppy disk drive connected to said memory and to said processing unit, powered by said battery pack, and housed by said enclosure.

12. The portable computer of Claim 1 in combination with a carrying case having:

A. a receptacle portion for receiving and holding said computer, said receptacle portion (i) defining a window coinciding with said computer housing window for rendering said display visible and said touch screen accessible, and (ii) having a top side, and a bottom side opposite to said top side;

B. a strap portion secured nearer the top side than the bottom side of said receptacle portion for suspending said personal computer from the neck of an ambulatory user;

C. a loop portion secured to the bottom side of said receptacle portion case for receiving a belt worn by said user; and

D. said receptacle portion, said strap portion and said loop portion cooperating to maintain said portable computer at a suitable location and orientation for use.

13. The portable computer of Claim 1 wherein said enclosure includes a substantially planar surface defining said window, and said window constitutes at least 30% of said top surface's surface area.

14. The portable computer of Claim 13 wherein said processing

unit generates said data collection application, and executed said application by causing specific displays of content and format established by said application to appear on said display and interfacing with said touch sensitive screen to receive data entered manually thereupon for processing by said processing unit and storage in said memory.

15. The portable computer of claim 14 wherein said processing unit causes said display to display one or more data entry devices selected from a group comprising multiple-choice questions, multiple-choice/multiple-selection questions, simulated keyboard, sliding scale, and library of possible responses.

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